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Food Patterns for the Future.....	Raymond P. Christensen	1
Outlook Highlights.....		2
Farm Property Taxes Up Again.....	Samuel L. Crockett	5
Farm Real Estate Values Continue Up.....	William H. Scofield	6
Fish Consumption Rising.....	Harry Sherr	7
What Housewives Like and Dislike About Potatoes....	Trienah Meyers	8
Agricultural Assets Up.....	Norman J. Wall	10
Feed Seldom Kills Chickens.....		11
Better Markets for Larger Crops.....	William C. Crow	12

## *Food Patterns for the Future*

FARMERS have increased their capacity to produce food to the highest levels in United States history and prospects are that they will produce even more in the future. What will happen to the market for food products in the years ahead is one of the important problems facing postwar America.

The problem poses some important questions. Will food production increase more or less than population? What production-consumption pattern will be necessary to enable us to make full use of our expanded production capacity? How can we meet temporary food shortages and surpluses that may develop? What does it all mean in terms of the living the farmer can make from his land?

During the 30 years before World War II, food output increased at about the same rate as the population. Stimulated by strong war and postwar demands, production increased even more rapidly after the conflict began.

As the wartime shortages disappear, farmers will be better able to adopt improved methods to food production that already have been developed. Further advances in technology such as mechanization, the development of improved varieties of plants and ani-

mals, and better methods of insect and disease control also will help farmers boost their output.

Over the long-run, the prospects indicate that food production is likely to increase at least as much as population if prices remain high. Even if prices decline, production probably would not be reduced much. On most farms, a reduction in output would mean larger reductions in cash returns than in cash outlays. The production methods that have raised output per acre and per worker will continue to be profitable for individual farmers.

A higher level of food consumption than in prewar will be necessary in the years ahead to make full use of our expanded production capacity. For example, if the tendency of food output to expand at about the same rate as population is resumed and if about the same proportion of our food is imported and exported as before the war, enough food would be available for consumption per person to average a fourth higher than in 1935-39. This would be 15 percent above wartime levels and 10 percent higher than in 1947.

High level production per person could mean greater satisfaction of food

(Continued on page 3)

# Outlook Highlights

..... September 1948 ..

## Crop Prices Down

Under the impact of prospects for the largest production in history, prices of farm crops continued downward in the last month. Since January, food grains have fallen off 30 percent, feed grains and hay 26 percent, oil-bearing crops 18 percent, and cotton 8 percent.

Prices of livestock products, on the other hand, held steady last month. In mid-August, they averaged the same as in July and were 5 percent above January. With crops averaging sharply lower than in July, the index of prices received by farmers dropped 8 points to 293.

Lower feed prices offset advances in other commodities and the index of prices paid by farmers including interest and taxes remained at the July level of 251. Since the index of prices received declined, the parity ratio fell 3 points to 117.

Wholesale prices again set a new record in August when prices of metals, metal products and building materials moved up. Because of increased defense spending, exceptionally high construction activity and large outlays for production equipment by business, no weakening of these prices is likely soon.

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## Fats and Oils

Because of increased supplies, fats and oils prices are likely to average lower in the year beginning October 1 than in 1947-48. Strong domestic and export demand, however, will keep them well above wartime ceilings.

Bumper oilseed crops are expected this year. Production of soybeans and peanuts picked and threshed is expected to be a record. The flaxseed crop is estimated to be 12 percent above last year while cottonseed production will be up considerably.

## Price Ratios Improve

Prospects for large feed supplies in 1948-49 has been accompanied by declining feed prices. By mid-August livestock-feed price ratios were more favorable to livestock and poultry producers than they have been during most of the past year. As a result, farmers are apt to feed heavily during the coming 12 months.

## More Wheat for Europe

Early estimates indicate that around 960 million bushels of wheat will enter world trade in 1948-49. Roughly two-thirds is expected to go to nations participating in the ERP.

Export of this amount to these countries plus domestic production would be about enough to restore consumption per person to the prewar rate. However, stocks of other foods are still low. Food grains are needed as substitutes for other products which are still short.

## Meat Animals Down

After setting new records in mid-July, average meat animals prices declined slightly by mid-August. Hogs continued up but beef cattle and lambs declined. Sheep prices were unchanged.

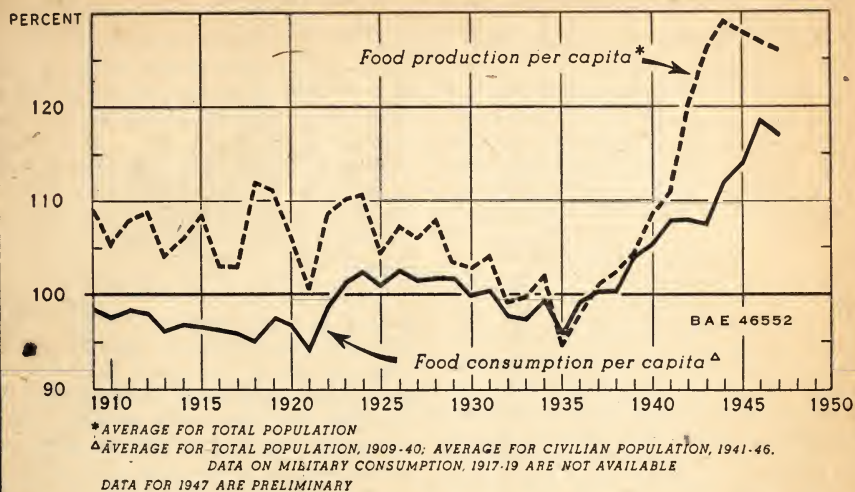
With the record corn crop in prospect, farmers have been moving more cattle to feedlots; much more than a year ago when a short crop cut down feeding. On August 1, cattle on feed were 12 percent below 1947, but feeders were planning larger operations for fall and winter. This change is tightening beef supplies now but will ease them next year.

(Continued on page 16)



# FOOD PRODUCTION AND CONSUMPTION

## INDEX NUMBERS (1935-39 = 100)



## Food Patterns for the Future

*(Continued from page 1)*

wants and more nutritious diets than we have ever had. But if we are to consume all the food farmers are likely to produce, changes in the production-consumption pattern would be necessary. Diets of Americans generally would need to include more livestock products, fruits and vegetables. Long-time trends toward more of these products would have to be continued.

### More Livestock Products

Such a diet would help absorb the expanded production of United States farmers. For example, diets of higher income families contain more livestock products, fruits and vegetables and only slightly less of other foods than those of lower income families. To produce the average diet per person eaten in families with incomes over \$3,000 in 1942, 50 percent more land and 70 percent more farm labor would have been required than for diets of those with incomes of less than \$500. If all the people in the

country in 1942 had had diets similar to the higher income group, approximately 30 percent more food would have been consumed.

Small shifts to more livestock products in place of crop foods would readily absorb any expanded food output. In the past, livestock products have supplied only 40 percent of the food energy, 60 percent of the protein and about half of all the nutrients in our diets. Production of livestock products, however, has taken nearly 90 percent of the land and 75 percent of the labor farmers have used to raise the food we consume. These estimates include allowances for byproduct feeds obtained from grains and oil crops which are fed to livestock.

A shift to greater livestock production would permit improvements in American diets. Livestock products have a much higher concentration of protein, minerals and vitamins in relation to energy content than do most food crops.

### Food Needs Can Be Met

There is the possibility that temporary food shortages may develop in

the future because of droughts or lack of imports or because we are called upon to supply food for foreign populations. In such a situation, it would be possible to support more people with adequate diets by moderate changes in the national pattern of food production and consumption. This shift would be in the opposite direction from that just discussed. The production-consumption pattern would need to include more of the crop products that give relatively large outputs of food nutrients per unit of resources.

### Could Support More People

The acreage required to produce the products consumed per person has declined in the last 30 years because of increases in crop and livestock-product yields. In recent years, about 2.7 acres of cropland have been used to produce the average diet. This includes 0.8 of an acre as an allowance for the feed obtained from pasture. On this basis, about 430 million acres of cropland equivalent have been used for food production in recent years.

With 1941-45 average yields, this acreage would supply about 160 million people with a diet such as we had during the war. Of course, we imported some products during the war but exports were much larger and our population was only 140 million.

About 40 percent of the food energy in our wartime diets was from livestock products. However, over 200 million people could have been supported from the same land resources, if we had consumed a diet similar to that described as adequate low-cost in the recent food plans of the Bureau of Human Nutrition and Home Economics. In this diet, only 30 percent of the energy is from livestock products. On the other hand, only 135 million could have been supplied with a diet plan described as liberal in which 44 percent of the energy is from livestock products.

Of course, very marked shifts in consumption to crop foods in place of livestock would involve changes in food habits that most people would not like to make. They would not be necessary so long as productivity of land resources continue to increase as rapidly as population.

Food producers have a very large stake in what happens to demand for food products. A decline in foreign demand for food products to prewar levels would mean some reduction in total demand. But if industrial employment and incomes remain at about 1947 levels, the larger food supply probably can be marketed at prices not much lower than they were in that year. On the other hand, if employment and incomes generally decline and demand returns to the levels of just before the war, a food supply per person at current rates could not be sold except at much lower prices.

Technological advance has raised output per acre and per worker and will help food producers maintain good incomes even if the prices they receive are lower. Continued improvement in farming methods make possible lower costs per unit especially if costs of items used in production also decline. In this connection, the gradual reduction in number of workers employed in agriculture which was speeded up during the war is significant. It means that net farm income must be divided among fewer people.

### More Efficiency Needed

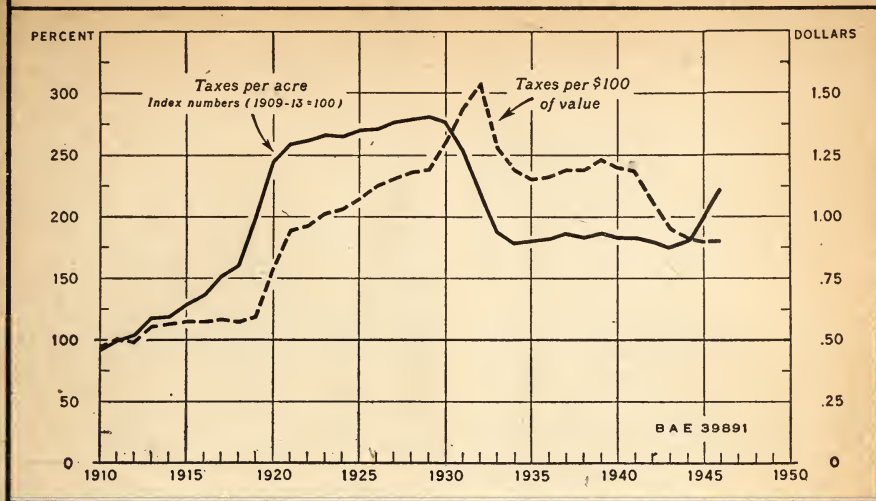
More efficient methods of producing and distributing food should be pushed forward as rapidly as possible. They will help make profitable a larger volume of production and will offset the effects of lower prices. And they will make possible a larger volume of consumption even though expenditures for food by consumers should remain unchanged.

A shift to more livestock products could help solve the problem of maintaining the natural fertility of soils. If most of the expansion is in roughage-consuming livestock, it would be possible to increase the acreage in grass and legume crops. The acreage of intertilled crops which cause more erosion could be reduced. Adjustments in land use to conserve land resources would help to make possible a high level of production on a sustained basis. Farmers as well as others would benefit.

RAYMOND P. CHRISTENSEN  
*Bureau of Agricultural Economics*



# FARM REAL ESTATE TAXES



## Farm Property Taxes Up Again; Take 96 Cents Per \$100

**F**ARMERS are extremely conscious of their tax bills, especially property taxes. To a large extent, this is due to the fact that the property tax is an annual "must." It has to be paid whether crops are good or bad; whether the farm shows a profit or loss for the year.

Since real estate generally makes up such a large part of the capital assets of farms, property taxes fall heavily on farmers as a group. In addition, a host of other levies—and particularly the Federal income tax—are taking a sizeable contribution from the farmer's pocketbook. Like everyone else during the last few years, he has had to dig deeper into his earnings to make these payments.

### Still Below Peak

The farmer's property tax bill has been larger in each of the last four years. In 1947, the index of real estate taxes per acre was 254 (1909-13=100), about 15 percent above 1946 and 43 percent above 1944 when the present rise

began. The highest point ever reached by the index was 281 in 1929, the year the great depression began.

### Only a Few Declines

Property tax increases averaged highest in the big grain-producing West North Central States with the largest gain in North Dakota. In this State, however, a large part of the increase was due to new laws which changed assessment ratios and local tax rate limits. Declines occurred in only a few isolated States. They were due almost entirely to new State laws which applied to that year only.

Real-estate taxes went up more rapidly than farm land values in 1947 for the first time in several years. Taxes per \$100 of value now average 96 cents compared with 90 cents in 1946 and the record of \$1.54 set in 1932. Last year was the first since 1939 that taxes per \$100 of value have gone up. Increases occurred in more than three-fourths of the States.

So much for the farmer's property tax bill. Let us take a quick look at some of the other taxes farmers pay.

### Income Tax Up Sharply

During the last few years when crops have been generally good and farmers' prices high, Federal income tax payments alone have exceeded total property taxes. In 1948, it is estimated that farmers paid 960 million dollars on 1947 incomes compared with a total of 705 millions for real and personal property taxes. No figures are available on the amount of State income taxes farmers pay.

In addition to higher income taxes, the farmer, like other people, is paying more excise taxes to Federal and many States and local governments. Moreover, all available evidence points toward his having to pay still more taxes to a rapidly growing list of local taxing units.

Why are taxes continuing to increase? Rising prices have played an important part. By 1944, inflationary forces growing out of our wartime economy already were affecting every level of government. As prices rose, pressure on local units of government for more revenue from property taxes increased. A year later when price and other wartime controls were still in effect, demands from citizens caused governmental agencies to restore services which had been dropped or drastically curtailed during the war.

To a large extent, people hired to perform these services were paid salaries considerably above prewar. In 1946, for example, wage and salary increases were granted school teachers and other State and local government employees generally. This required substantial increases in local property tax levies.

Rising prices account for only part of the increase in the farmer's tax bill in recent years. Early in World War II, Federal income tax rates were raised sharply and personal exemptions were lowered. This, along with several good crop years and higher prices for farm products caused many farmers to pay Federal income taxes for the first time. Also, additional Federal excise levies were enacted during the war.

### No Relief Soon

In 1947, however, the increases in the farmer's tax bill apparently were largely due to rising costs of materials and supplies. The outlook shows little prospect for relief from high costs of present services. In fact, they are likely to go even higher.

There is one bright spot in the tax picture, though: Due to the lower rates now in effect, Federal income taxes farmers will pay will be lower next year.

SAMUEL L. CROCKETT  
*Bureau of Agricultural Economics*

## Farm Real Estate Values Continue Up

FARM real estate values continued upward during the April-June quarter and on July 1 averaged 2 percent above the 1920 peak, 7 percent above a year earlier, and more than double the 1935-39 average.

The present inflation in land values seems to have reached its highest level in the Southeastern States, particularly North Carolina, Kentucky, Tennessee, and Alabama. In only 15 States are land values still below the 1920 level and the only large group of them is centered in the Corn Belt and Northern Plains. This is one of the areas where the World War boom pushed values the highest and where they dropped the most during the 1930's.

The trend in land values during the second quarter was definitely upward in all but about 10 States. Usually the farm real estate market is relatively inactive during these months.

Increases of 5 percent or more were reported for Montana, Colorado, Nebraska, Oklahoma, Arkansas, and Virginia. No change occurred in Maine, Massachusetts, Delaware, Maryland, Tennessee, and Mississippi. Values continued to decline in California and Florida, probably because of the continued weakness in prices for citrus and truck crops.

WILLIAM H. SCOFIELD  
*Bureau of Agricultural Economics*



# Fish Consumption Rising

**A**MERICAN civilians have eaten 8 to 12 pounds of commercial fish products per person each year since 1930, a recently completed study shows. The trend in fish consumption was generally upward until 1942. It then slumped as wartime military purchases and exports cut into civilian supplies. After the 14-year low point was reached in 1943, consumption again began to increase.

The increase in per capita consumption before 1942 was due mainly to new methods of preparing and preserving fish by freezing, improved transportation and distribution, and more adequate local storage facilities. In addition, wartime scarcities of many foods and postwar increases in meat prices have caused many people to become more accustomed to eating fish products.

## Inland Consumption Up

Before the war, consumption of fish was concentrated in coastal areas of the country. Because of improved methods of producing, storing, and distributing fresh and frozen fish, however, consumption in inland areas has increased. Recent studies in about 20 inland cities indicate that consumers prefer commercially frozen or packaged fish—especially quick-frozen packaged rosefish, cod, and other ground-fish fillets—to locally caught fresh fish.

Most of the expansion in fish consumption in the United States has been in fresh and frozen fish, chiefly filets. Rising from a low of 4.2 pounds per person in 1933 to 6.3 in 1941, consumption of fresh and frozen fish remained fairly high during the war. Since then it has exceeded prewar levels.

Consumption of canned fish per person since 1930 has ranged from a high of 5.8 pounds in 1936 to a low of 1.9 pounds in 1942. Large military purchases and exports during the war made heavy inroads on domestic supplies. Consumption has not yet recovered to prewar levels.

Cured fish consumption has been relatively small, ranging from 1.1 pounds per person to 0.7 pound since

1932. This can be explained by the fact that Americans generally depend less on foods preserved by salting or smoking than people in other countries. With abundant supplies of meat, poultry, eggs, dairy products and fresh and processed fruits and vegetables available, there has been a downward trend in the consumption of salted or smoked foods that are staples elsewhere.

## Billion Pounds a Year

Production of fish and fishery products for food in the United States has increased in most years since 1930 and usually has been above a billion pounds, edible basis. Since 1945, annual output has been about 1.3 billion pounds. Even during the war, production was relatively high.

Receipts of fish and fishery products from Alaska and foreign countries made up 30 to 40 percent of the total supplies marketed from 1930 to 1939 and about a fourth since then. Most of the fish received from abroad has been canned salmon from Alaska, and fresh and frozen fish from Canada, Newfoundland and Iceland. Before the war, Japan was a major source of frozen and canned tuna and canned crabmeat.

## Canned Exports Large

Relatively little fresh and frozen fish has been exported or shipped to territories and the quantity has been declining since 1934. The opposite is true for canned fish, especially salmon and sardines. From 10 to 16 percent of the total quantity disappearing into market channels was shipped abroad from 1930 to 1939. Since 1940 exports for some years were twice as large as the average for 1935-39.

Exports and shipments of cured fish ranged from 5 to 10 percent of total supplies before the war. After the conflict drove most of the Allied fishing fleets off the seas, shipments of cured fish abroad increased and in 1943 and 1944 were 20 to 25 percent of domestic supplies.

HARRY SHERR  
*Bureau of Agricultural Economics*

## Study Shows

# What Housewives Like and Dislike About Potatoes

**A**GRICULTURAL over-production hasn't been in the headlines much for some time. Full employment and high incomes in the United States and critical needs abroad have kept demand for food so strong that farmers have been able to sell most of their products at prices much higher than before the war. There have been a few exceptions, however. One of the most important is potatoes.

Unlike many other food products, consumption of potatoes per person has continued its long-time downward trend. Although the acreage planted to potatoes has been declining, yields per acre have increased. Postwar crops have been as large or larger than in most years before 1942.

### Better Farming Practices

Good weather has helped potato farmers raise output per acre. However, shifts from lower yielding to higher yielding land within potato growing areas have been more important. In addition, increased use of fertilizer, better insect control and other practices helped raise yields.

While nature and science combined to produce big yields, the "floor" under potato prices helped protect farmers against severe declines. Purchases for price support were made in 1946, 1947 and 1948.

Many phases of the potato problem are being studied. In the laboratories, scientists are conducting experiments to produce varieties of potatoes more acceptable to consumers. Ways of using more potatoes for industrial products are being investigated.

Scientists also are digging into other important parts of the problem—the marketing and consumption of potatoes. The facts they will find should do much to help us meet the difficulties we are having with potatoes.

One of these studies recently was made by the Bureau of Agricultural Economics under the Research and

Marketing Act. It was designed to find out what homemakers like and dislike about the potatoes they buy for their families. The information was obtained from more than 3,000 housewives living in towns with a population of 2,500 or more. It will be useful to producers and distributors and will provide a base for further research.

### Major Findings

The major findings in the potato preference study include:

*Size of potato:* Most homemakers say that they usually buy medium-sized potatoes, chiefly because (1) they are the right size for judging portions; (2) they are easier to handle; and (3) they can be used for several kinds of cooking. Only a fourth ever buy small-sized potatoes just by themselves. Main reasons why housewives don't buy them are that they take too much time to prepare and too much is wasted in peeling. However, about a third of the homemakers said they would buy more small potatoes if the price were reduced.

More than a third of the homemakers said they sometimes buy large potatoes; chiefly for baking.

*Outside characteristics:* Homemakers look for three or four specific external characteristics when they buy potatoes. They most frequently mention "smooth skin," "clean surface," "few eyes or dents," and "no spots or blemishes."

### All-Purpose Type Popular

*Cooking qualities:* Almost 9 in 10 of the housewives buy only an all-purpose potato plus one special-purpose potato. The special purpose potato is usually baked. Qualities stressed by homemakers for the all-purpose potato: it should cook up mealy; it should not fall apart in cooking; and it should cook up evenly and soft throughout.

*Cooking habits:* Nine out of ten homemakers served potatoes at least once during the week before they were interviewed and the average number of



Medium size

Clean

Smooth skin

No spots

Few eyes

Light color

Undamaged



To cook up

soft,

mealy,

evenly

throughout

without

falling apart

## THE HOUSEWIVES IDEAL POTATO

servings was four. During that week, people in the households surveyed ate an average of 3 pounds of potatoes per person. Mashed potatoes are served most often. Next in order are boiled, fried, baked and creamed.

### Use Substitutes

*Potato substitutes:* About three-fourths of the homemakers said they sometimes use other foods as substitutes for potatoes. Those in the North said they most often use cereal pastes such as spaghetti, macaroni, and noodles. Rice was second and the beans-peas-lentils group third. Homemakers in the South mentioned rice first, cereal pastes second and the grits-corn meal-mush group third. Contrary to expectations, sweet potatoes were reported as a substitute by only 10 percent in the North and 16 percent in the South.

*Use of potatoes:* Six in ten homemakers said they include potatoes in their meals because their families like them, and that they serve potatoes about as often as their families like to eat them. Only a few know that potatoes have any food value other than starch.

*Brand packaged potatoes:* More than half of the homemakers buy potatoes loose out of the bin; usually 5 pounds or less at a time. Those who buy packaged potatoes usually take 10 or 15 pounds at a time.

*Graded potatoes:* While over half of the homemakers said they had heard of potato grades, most had only a general idea what they meant. Those who had heard of grades never noticed markings on the bins, though a few had noticed them on bags or packages. However, most would like to have grades marked on bins or packages.

*Storage problems:* Most homemakers bought enough potatoes at one time to last a week and they usually stored them in the kitchen. Three out of four said that at some time they had bought potatoes which were so bad they had to be thrown away.

### Quality Most Important

*Processed potatoes:* Potato chips are used by most homemakers at some time or other and are most often served for parties, snacks and picnics. Nearly half of the homemakers had never heard of canned boiled potatoes, frozen French fries or potato flour.

*Price, size, and quality:* Homemakers say that quality is most important to homemakers when they buy potatoes. Size is mentioned or indicated to be second in importance and price third. Lower income buyers seem to be slightly more concerned about price than the upper income group.

**TRIENAH MEYERS**  
*Bureau of Agricultural Economics*



# Agricultural Assets Up;

## Farmers' Real Income Down

THE ASSETS of agriculture, viewed as a single industry, increased from 110 billion dollars to 122 billion dollars during 1947, according to the 1948 Balance Sheet of Agriculture.

Farm real estate values were up from 59 to 63 billion dollars during the year; other physical assets from 31 to 37 billion dollars. Liquid financial assets which include currency, bank deposits and United States savings bonds, rose about three-fourths billion to 20 billion dollars.

### High Prices Cause Gain

As in other recent years, gains in physical assets were caused mostly by higher prices. Physical changes in inventory were generally small. There was a slight increase in farm machinery and motor vehicles, while livestock numbers declined somewhat. The amount of farm real estate remained virtually unchanged.

The 11-percent increase in the value of the total assets of agriculture was a little less than the 13-percent gain for 1946. During 1947 values of real estate, livestock, bank deposits, and currency increased at a markedly lower rate than in the previous year while the gain in machinery, motor vehicles, crops, and household equipment was notably greater.

Values of balance sheet items have been increasing since 1940 with total assets rising from 54 billions to 122 billions by 1948. This is accounted for by (1) inflation of inventory values resulting from higher prices, 49 billions; (2) physical increases in inventories, 2 billions; and (3) increase in financial assets, 17 billions.

### Debts Decline

Equities of operators and landlords rose from 44 billion dollars in 1940 to 113 billions in 1948. This includes a 68 billion dollar gain in assets and a debt reduction of about 1 billion.

The gain in equities rests in part on what may be a temporary price increase. If physical assets are valued at 1940 prices, the increase drops to 20 billion dollars. This includes (1) increased financial assets, 17 billion dollars; (2) increase in physical inventories, 2 billion dollars; (3) decrease in debt, 1 billion dollars.

Adjusting the values of physical assets to 1940 prices emphasizes the fact that the growth of the farmers' financial assets is more important than the rise in the value of their physical assets. Not only do the high values of physical assets rest on inflated prices but they mean little to farmers who will continue to farm. Since these farmers

## Balance Sheet of Agriculture

Item	Jan. 1, 1940	Jan. 1, 1947	Jan. 1, 1948
<b>Assets:</b>	<i>Bil. dol.</i>	<i>Bil. dol.</i>	<i>Bil. dol.</i>
Real estate.....	33. 6	58. 6	62. 8
Other physical assets.....	15. 2	30. 7	37. 2
Financial assets.....	5. 0	21. 2	22. 3
Total.....	53. 8	110. 5	122. 3
<b>Liabilities:</b>			
Non-real-estate debt.....	3. 4	3. 5	4. 2
Real estate mortgages.....	6. 6	4. 8	4. 9
Equities.....	43. 8	102. 2	113. 2
Total.....	53. 8	110. 5	122. 3

are not likely to sell more than a small proportion of these assets, they will not benefit greatly from current prices. Therefore, the chief gains realized by the main body of farmers are higher incomes, increased holding of financial assets, and reduction of debts.

For the second consecutive year, farm-mortgage debt increased around 100 million dollars. This occurred despite the fact that net farm income rose to the highest level in history. Apparently less income went to repay the principal of debts in 1947 because more was spent on equipment, improvements, and family living.

Non-real-estate short-term debt expanded about 700 million dollars in 1947 to bring the increase for the last three years to 22 percent. This reflected the greater availability, at higher prices, of equipment, materials and supplies used on the farm and in the farm home.

### Total Debt Lower

Despite increases in the last 2 years in farm-mortgage and non-real-estate debt, however, the total is materially lower than during the 1920's.

The growth in assets and the reduction in liabilities since the war began has resulted, of course, from the large increase in the flow of income to agricultural producers. However, farmers have had to devote a larger share of their income to payments of Federal

income taxes. Federal taxes paid by farm operators on income earned in 1940 were only about 15 million dollars; those on 1947 income are estimated at 960 million dollars. Payments of Federal income taxes now exceed total real estate taxes paid by farmers.

The year 1947 may mark an important turning point in the farmers' financial well-being. For the first time since before the war, farmers' "real income" decreased. After payment of Federal income taxes the net income of farm operators in 1947 would buy 6 percent less "family maintenance" than would the smaller returns of 1946. Since the beginning of 1948, prices paid by farmers have continued to increase more rapidly than prices received.

### Some Are Worse Off

Favorable developments in the balance sheet for agriculture as a whole obscures the unfavorable situation of many areas and of many individual farmers. Incomes of growers in some of the specialized sectors of agriculture, such as the citrus fruit areas, have not continued to increase and their financial position has become worse. Many individual farmers also carry a heavy burden of debt as the result of purchasing farms at sharply increased prices. For these, a decline in farm income could easily lead to financial difficulties.

NORMAN J. WALL

*Bureau of Agricultural Economics*

## Feed Seldom Kills Chickens

EXPERIENCE shows that nearly all the samples of feed alleged to have killed chickens proved on proper laboratory examination to be perfectly harmless, it is pointed out by the Animal Husbandry Division of the Bureau of Animal Industry, United States Department of Agriculture.

A recent Department Circular No. 788 on Nutritive Requirements and Feed Formulas for Chickens, states that when feeds are found to be at fault, it is almost always a deficiency in the ration used, rather than the presence of harmful ingredients, that causes death or disease symptoms.

"The first impulse of many poultry-

men seems to be to take a sample of feed and have an analysis made when disease of unknown origin appears," it is stated. "This course of action hardly ever results in a solution of the problem, and the important thing to do is to have a poultry pathologist examine a few infected birds while they are still alive or soon after death."

It is recognized, of course, that diets for poultry are sometimes deficient in vitamin A or D, or riboflavin or manganese, but such deficiencies, the Department's specialists say, are much more easily detected by examining the chickens than by feed analysis.



# Better Markets

*for*

## Larger Crops

NEW techniques and practices, advancing mechanization, favorable weather, new consumer demands, have greatly expanded yields and total production of our vegetables and fruits. But most of the large city markets through which they must pass for distribution to the retail stores and consumers have remained virtually the same in size and lay-out for decade after decade. Only the indescribable congestion and confusion that reigns in them during market hours expands and intensifies with the years, multiplying delays and wastes and piling up the costs.

War put a stop to improvements and building but not much actually had been accomplished before. Several cities had made studies and plans, but only a few had taken action and so were better able to cope with the emergencies of war.

### Many Cities Now Acting

War over, many of the large cities are now not only studying their market conditions but this time are pressing on to act. Some have their plans about completed, others have their new or redesigned facilities well along, or practically finished. One city—Jackson, Miss.—opened its new market for business in July.

The Marketing Facilities Branch of the Production and Marketing Administration is assisting cities in every step of this work of developing efficient facilities for the wholesale handling of fruits, vegetables, poultry, eggs, meat, butter, cheese, frozen foods, and other products handled in a retail grocery store. It cannot answer all the requests, but once it takes on a city-market job representatives of the Branch expect to stay with it until the job is finished, if the city really means business. Its surveys are usually made in cooperation with the marketing

people in the State who are well acquainted with the local situation. It is now working with about 30 communities.

The new Jackson, Miss., market is patterned along the lines recommended in the report made by the Market Facilities Branch after a thorough-going study of local conditions. It was constructed with funds appropriated by the State Legislature to the State Central Market Board which had been created by the legislature 2 years ago. Representatives of the Branch assisted in drafting the legislation under which this Board was established.

### Several Reports Presented

Surveys have been completed and reports presented to local groups for consideration, debate, and decision in New Haven and Hartford; Richmond; Columbia, S. C.; Miami and Tampa; Atlanta; Baton Rouge; Houston and San Antonio; St. Louis; Columbus; and Benton Harbor, Mich. It is expected that work will be underway on most of these markets before the year is out. These include large markets and some of more moderate size. Each market is designed to meet local conditions. Some will be new and some will be replanned or rebuilt.

In New Haven, as one example, the report with the recommendations was finished in December 1946. It was presented to the Connecticut Regional Marketing Authority and the interested produce trade groups in New Haven.

### Suggest New Markets

The report recommended that a new market be developed on Boulevard Playground site. Reasons for this choice, from the four sites considered, were given. A proposed lay-out was shown by a scale model which was displayed in the office of the New Haven City Planning Commission.



Reasons why a new market was needed, rather than a rehabilitation of the old one, were explained. The total cost of a new market on this new site was estimated at \$1,004,092; this included ground for future expansion. It was shown that the total operating revenue which would be needed from rentals in the market to amortize the investment at 4 percent over 25 years, and pay taxes, salaries, maintenance, and other operating expenses, would be \$147,140, and that enough revenues to pay all these expenses could be obtained from the rentals that would be charged the tenants who would use the facilities.

### Big Savings Possible

As for savings, approximately \$75,000 could come from cartage alone. At least \$25,000 would be saved in breakage, deterioration, and spoilage of produce. Traffic congestion would be relieved thus saving valuable time for many groups. Expense to the city of policing the market area would be held to a minimum.

A knotty local problem arose, as frequently happens. The City Planning Commission and a large segment of the trade agreed with the recommendations, but certain owners of real estate in the present market area, and some operators in the wholesale produce market who own the property in which they do business, were concerned over what would become of their real estate if the present market were vacated. When analyzing this question it was found that a new elevated highway is being considered and that plans for bringing it through New Haven provide for its construction through the present market area which would practically eliminate the market. So the interested groups in New Haven then worked with the Connecticut Regional Marketing Authority on legislation to permit this Authority to develop the new market on the new site. This legislation was passed in June 1947.

### Remodeling Recommended

Tampa got quite a different report as a result of the survey there. For specified reasons no new market was recommended. The two present markets can do the job. But it was recom-

mended that the wholesale produce market may be developed further along specified lines, the better to serve the city. Three State agencies joined the Federal Department of Agriculture in this work—the State Agricultural Experiment Station, State Extension Service, and State Department of Agriculture.\*

Studies are well along in Baltimore; Norfolk; Greenville, S. C.; Savannah; Little Rock; Tyler, Tex.; Indianapolis; Milwaukee. Here again are variations in the size of the markets and the conditions they must satisfy.

The market facilities staff has been reorganized and revitalized for this postwar work. There are marketing specialists for each of the groups of commodities that will pass through these markets, equipment specialists, and an architectural engineer. Other special skills are represented on the staff.

When it takes on a city the staff makes an onsite study of conditions, analyzes the findings, makes a detailed preliminary report which includes estimates of costs and probable savings under the proposed arrangement, and proposes a specific plan.

### Scale Model Used

This plan along with a complete model lay-out of the new or reorganized market is presented to the local officials and interested groups which include farmers, growers and shippers, and trade, railroad, city and State representatives. The immediate goal is a complete expression of opinion. After all suggestions have been weighed, a revamped report is made to the community.

This model, by the way, can be adjusted to fit the conditions of any city. It includes miniature movable railroad tracks, refrigerated cars, wholesalers' stores and farmers' sheds, refrigerated warehouses, administration buildings, grain elevators, and smaller equipment like trucks. The parts are built to scale, and just as many or as few of them may be used as the conditions call for.

Through all the succeeding phases and their problems the Department representatives stand ready to help. Perhaps enabling legislation must be drawn up, or financing must be ar-

ranged, or a local architect chosen. Utility companies may want their services in planning the incoming lines, or tracks, or platforms, or switches.

## Study Equipment

All kinds of equipment are being studied. Lighting arrangements, refrigeration, and ripening rooms present their problems. Conveyor systems and elevators are subject to improvement. Pallets with fork-lifts are a new way of reducing handling costs under certain conditions. New models of old machines are here or expected. They will be watched in action and costs and efficiency will be analyzed. Studies are

under way to determine the specific kind of handling equipment that will minimize costs under varying situations.

## Strain to Continue

Huge production of vegetables and fruits at the country end and expanded consumption at the city end have thrown a terrific strain on the city distributing points. The strain is not lessened with the close of the war. Prospects are that it will increase until the city market facilities are built or rebuilt to fit the situation.

WILLIAM C. CROW

Marketing Facilities Branch, PMA

# Prices of Farm Products

[Estimates of average prices received by farmers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and State]

Commodity	5-year average		Aug. 15, 1947	July 15, 1948	Aug. 15, 1948	Parity price, Aug. 15, 1948
	August 1909-July 1914	January 1935-December 1939				
Wheat (bushel).....dollars..	0.884	0.837	2.10	2.03	1.96	2.22
Rye (bushel).....do.....	.720	.554	2.11	1.72	1.46	1.81
Rice (bushel).....do.....	.813	.742	2.71	3.09	2.56	2.04
Corn (bushel).....do.....	.642	.691	2.19	2.02	1.91	1.61
Oats (bushel).....do.....	.399	.340	.948	.866	.688	1.00
Barley (bushel).....do.....	.619	.533	1.61	1.42	1.14	1.55
Sorghum grain (100 pounds).....do.....	1.21	1.17	2.86	2.50	2.07	3.04
Hay (ton).....do.....	11.87	8.87	15.30	18.20	17.80	29.80
Cotton (pound).....cents.....	12.4	10.34	33.15	32.99	30.41	31.12
Cottonseed (ton).....dollars.....	22.55	27.52	75.50	96.00	76.60	56.60
Soybeans (bushel).....do.....	1.96	.954	3.07	3.66	2.91	2.41
Peanuts (pound).....cents.....	4.8	3.55	9.81	10.4	10.4	12.0
Flaxseed (bushel).....dollars.....	1.69	1.69	5.73	5.83	5.75	4.24
Potatoes (bushel).....do.....	3.697	.717	1.61	1.66	1.58	1.86
Sweetpotatoes (bushel).....do.....	.878	.807	2.70	3.62	2.65	2.20
Apples (bushel).....do.....	.96	.90	2.05	2.13	2.22	2.41
Oranges on tree (box).....do.....	2.29	1.11	1.86	1.26	1.43	3.80
Hogs (hundredweight).....do.....	7.27	8.38	23.60	25.90	27.10	18.20
Beef cattle (hundredweight).....do.....	5.42	6.56	19.00	25.80	24.40	13.60
Veal calves (hundredweight).....do.....	6.75	7.80	20.70	26.70	26.60	16.90
Lambs (hundredweight).....do.....	5.88	7.79	20.90	26.20	24.80	14.80
Butterfat (pound).....cents.....	26.3	29.1	73.3	84.4	81.1	62.8
Milk, wholesale (100 pounds).....dollars.....	1.60	1.81	4.15	4.86	5.02	63.94
Chickens (pound).....cents.....	11.4	14.9	26.9	31.9	32.5	28.6
Eggs (dozen).....do.....	21.5	21.7	47.5	45.8	49.2	54.0
Wool (pound).....do.....	18.3	23.8	41.9	49.0	47.1	45.9

<sup>1</sup> Comparable base price, August 1909-July 1914.

<sup>2</sup> Comparable price computed under the Steagall amendment.

<sup>3</sup> 1919-28 average of \$1.12 per bushel used in computing parity.

<sup>4</sup> Revised.

<sup>5</sup> 1919-28 average for computing parity price.

<sup>6</sup> Adjusted for seasonal variation.

# Economic Trends Affecting Agriculture

Year and month	Industrial production (1935-39 = 100) <sup>1</sup>	Income of industrial workers (1935-39 = 100) <sup>2</sup>	1910-14=100				Index of prices received by farmers (August 1909-July 1914=100)				
			Average earnings of factory workers	Whole-sale prices of all commodities <sup>3</sup>	Prices paid by farmers		Farm wage rates <sup>4</sup>	Livestock and products			
					Com-modities	Com-modities, interest, and taxes		Dairy products	Poul-try and eggs	Meat ani-mals	All live-stock
1910-14 average.....	58	50	100	100	100	100	100	100	101	101	101
1915-19 average.....	72	90	152	158	151	150	148	148	154	163	158
1920-24 average.....	75	122	221	160	161	173	178	159	163	123	142
1925-29 average.....	98	129	232	143	155	168	179	160	155	148	154
1930-34 average.....	74	78	179	107	122	135	115	105	94	85	93
1935-39 average.....	100	100	199	118	125	128	118	119	109	119	117
1940-44 average.....	192	\$ 238	325	139	150	147	212	162	146	171	164
1945 average.....	203	\$ 291	403	164	180	172	350	197	196	210	203
1946 average.....	170	\$ 275	391	177	202	193	378	242	198	256	240
1947 average.....	187	332	440	222	246	231	408	269	221	340	293
<b>1947</b>											
August.....	182	\$ 333	438	224	249	234	-----	258	224	349	295
September.....	187	\$ 346	449	230	253	238	-----	282	246	367	315
October.....	190	\$ 348	455	231	254	239	404	283	251	360	313
November.....	192	\$ 352	458	233	257	241	-----	293	242	338	304
December.....	192	\$ 364	471	238	262	245	-----	311	262	352	320
<b>1948</b>											
January.....	193	\$ 359	466	242	266	251	425	313	231	379	328
February.....	194	\$ 354	462	235	263	248	-----	307	218	331	300
March.....	\$ 191	\$ 358	466	236	262	247	-----	298	212	342	302
April.....	188	340	462	238	264	249	420	296	214	347	304
May.....	\$ 192	348	464	239	265	250	-----	291	211	361	309
June.....	192	-----	\$ 473	243	266	251	-----	291	221	390	326
July.....	187	-----	-----	246	266	251	431	300	234	417	344
August.....	-----	-----	-----	266	251	-----	-----	305	247	411	344

Year and month	Index of prices received by farmers (August 1909-July 1914=100)								Parity ratio <sup>5</sup>
	Crops							All crops and live-stock	
	Food grains	Feed grains and hay	To-bacco	Cotton	Oil-bearing crops	Fruit	Truck crops		
1910-14 average.....	100	101	102	96	98	99	-----	99	100
1915-19 average.....	193	164	187	168	187	125	-----	168	162
1920-24 average.....	147	126	192	189	149	148	7 143	160	151
1925-29 average.....	140	119	172	145	129	141	140	143	149
1930-34 average.....	70	76	119	74	72	94	106	86	90
1935-39 average.....	94	95	175	83	106	83	102	97	107
1940-44 average.....	123	119	245	131	159	133	172	143	154
1945 average.....	172	161	366	171	215	220	224	201	202
1946 average.....	201	195	382	228	244	226	204	226	233
1947 average.....	271	246	380	261	335	194	249	261	278
1947									
August.....	246	270	383	267	308	177	211	255	276
September.....	278	297	352	252	311	181	179	254	286
October.....	302	284	357	247	344	166	238	261	289
November.....	312	283	354	257	349	151	272	268	287
December.....	318	305	377	275	367	149	294	281	301
1948									
January.....	322	318	377	267	377	135	320	284	307
February.....	251	261	374	248	333	136	320	257	279
March.....	260	284	372	256	339	140	295	262	283
April.....	268	291	371	275	351	142	340	276	291
May.....	261	282	370	284	357	141	262	267	289
June.....	249	278	370	284	364	155	213	261	295
July.....	240	256	370	266	366	172	213	253	301
August.....	227	235	386	245	310	183	172	236	293

<sup>1</sup> Federal Reserve Board represents output of mining and manufacturing; monthly data adjusted for seasonal variation.

<sup>2</sup> Computed from data furnished by Bureau of Labor Statistics and Interstate Commerce Commission on pay rolls in mining, manufacturing, and transportation; monthly data adjusted for seasonal variation. Revised August 1948.

<sup>3</sup> Bureau of Labor Statistics.

<sup>4</sup> Monthly data adjusted for seasonal variation.

<sup>5</sup> Revised.

<sup>6</sup> Ratio of prices received to prices paid for commodities, interest, and taxes.

<sup>7</sup> 1924 only.

<sup>8</sup> Preliminary.



# Outlook Highlights

(Continued from page 2)

## Fruit Prices Up

With production smaller, prices growers will receive for deciduous fruit this fall are likely to average higher than last year and about twice prewar levels. Demand for fruit for processing seems as strong as a year ago.

## Cotton Stocks Up

The new cotton marketing season began August 1 with lower prices and a larger carry-over than a year earlier.

During last season, domestic mills consumed 678,000 bales less cotton than the 10,025,000 in 1946-47 while exports were about 2 million bales, the lowest for any peacetime year since 1871-72. Stocks on hand August 1 were up about half a million bales over the 1947 carry-over of 2.5 million bales.

With August 1 estimates indicating a record yield, the cotton crop this year may be 28 percent above 1947 and the largest since 1937.

## Food Consumption Down

United States civilians will eat a little less food per person this year than in 1947, even though total crop production is expected to set a record. However, consumption will be about 12 percent above prewar.

Output of food crops is down slightly from last year. Bigger feed crops will not have much effect on production of livestock and products until 1949. Retail food prices are likely to continue high through the year even though export demand may be less than a year ago.

## Milk Herds Decline

The number of milk cows continued to decline through the first half of 1948. The average size of herds is now the smallest since 1938. Unfavorable relationships between prices of dairy products and feeds contributed to the decline. In addition, some dairy farmers have shifted to meat animal or cash grain farming.

Much more favorable relationships between dairy product and feed prices will tend to slow the decline in the number of milk cows the rest of 1948; may halt it next year.

## Potatoes and Sweetpotatoes

Potato prices are expected to remain near support levels during the rest of the 1948 crop marketing season. Through August 12, more than 16 million bushels had been purchased by the Government to hold prices at the support level. Large additional purchases are likely. The 1948 crop is now expected to exceed 399 million bushels.

Although prospects for the sweetpotato crop have improved, the crop is expected to be the second smallest since 1925. Prices probably will stay above support levels most of the season.

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